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Realizing Apprenticeship's Potential

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In this issue . . .

"This was something tangible . . . something they had built with their hands. It can give new hope to people in similar circumstances who do not have jobs."–Page 20

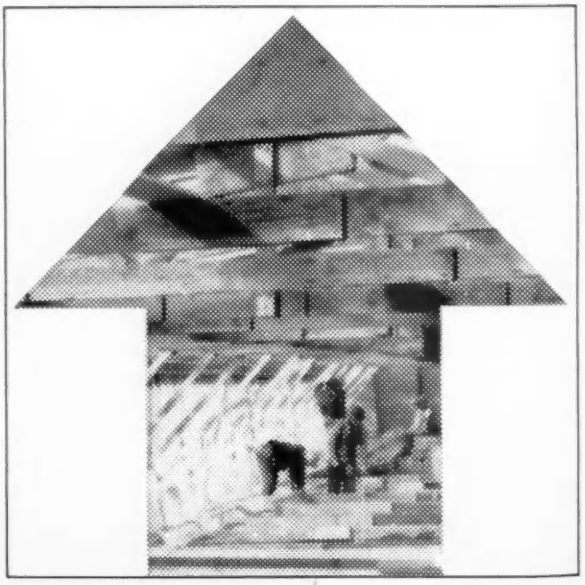
. . . if television projects a picture of police work as being an overwhelmingly white, male preserve, it's merely a case of art imitating life.–Page 25

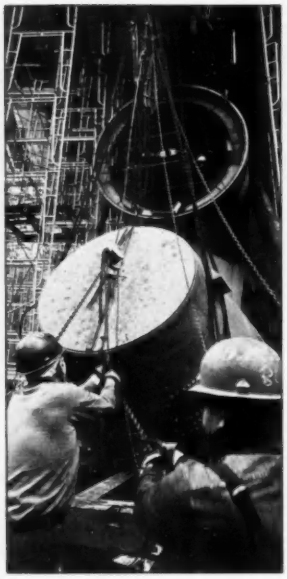
Journeymen without apprenticeship training . . . tend to pick up their skills on the job, typically in a haphazard fashion, and often fail to acquire the breadth of training and the understanding of the theory of their trades that characterize apprenticeship training.–Page 11

. . . apprenticeship is falling short of what it is capable of accomplishing, not only for business and industry, but for the vast numbers of American workers who could begin satisfying careers through the system.–Page 3

. . . some students called it "pig science."–Page 29

. . . the Handbook has become a valuable tool for students, counselors, vocational guidance personnel, manpower planners and administrators, and, for that matter, anyone who is contemplating a change in his or her occupational field.–Page 21





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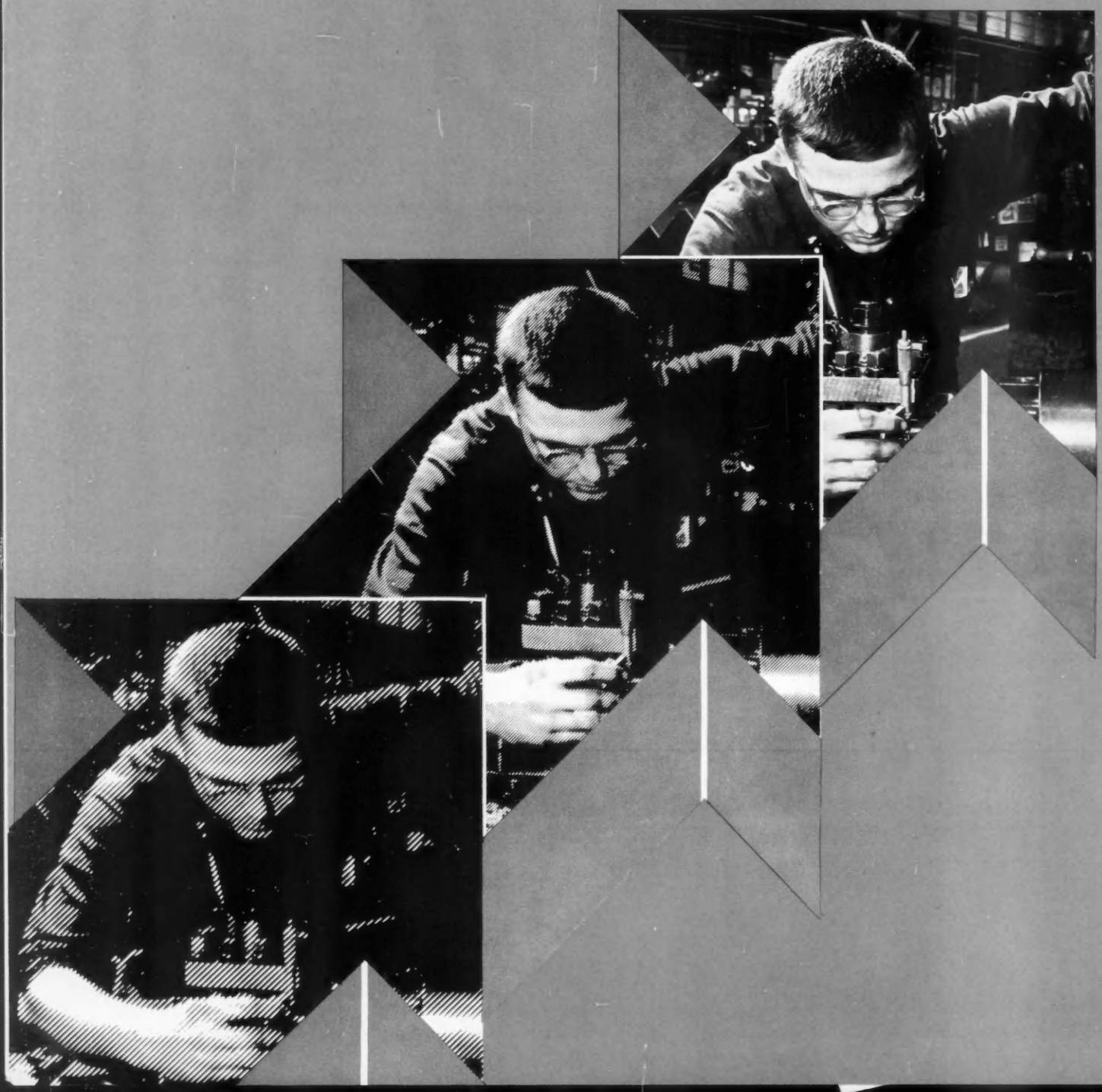
Realizing Apprenticeship's Potential

by Peter J. Brennan
Secretary of Labor



Labor Secretary Urges Training of More People in More Occupations

For more than two centuries, the system of training the young under the tutelage of master craftworkers has flourished in the United States. Apprentice candlestick makers and wheelwrights have given way over the years to apprentice operating engineers and tool and die makers. But the basically sound system of on-the-job training has persisted and grown.

The system today is the backbone of the construction industry in the United States. It is the major supplier of highly skilled and versatile workers who become the supervisors in our industrial complex. It sets the benchmarks for worker competence in many crafts and trades, and, above all, it is a virtually foolproof system of training based almost entirely on current jobsite skill requirements.

But its achievements have created a state of complacency which has tended to limit the type and number of people the system accepts and trains. And it has had the effect of narrowing apprenticeship while the occupations apprenticeship could serve expand with the hurtling speed of industrial and scientific developments.

In other words, apprenticeship is falling short of what it is capable of accomplishing, not only for business and industry, but for the vast numbers of American workers who could begin satisfying careers through the system. It is failing when it produces less than 20 percent of the highly skilled workers the Nation needs. It is failing when it is so rigid it fails to include hundreds of occupations needing formal on-the-job training. It is failing when full use is not made of vast human resources represented by minorities and women.

It was with these issues in mind that shortly after I became Secretary of Labor I asked the Manpower Administration to develop and present recommendations to me for actions the Federal Government might take to improve the partnership between government and private enterprise that is the foundation of our apprenticeship system. I called for an examination of all avenues of possible action, including the revision of administrative practices, rules and regulations, and possible new legislation.

A task force was formed in May 1973, composed of key officials in the Manpower Administration, academic experts, apprenticeship practitioners and experts from labor and management at both the local and national level, and authorities in vocational education. Within 2 months they submitted a report on new initiatives in apprenticeship. These initiatives spell out 21 immediate and long-range actions and three legislative recommendations pointing the way to a system with new breadth and scope.

Advisory Unit Reactivated

One of the first proposed initiatives was a recommendation to reactivate the Federal Committee on Apprenticeship, an advisory body to the Secretary of Labor established in 1934 by Franklin D. Roosevelt to help promote the apprenticeship system through uniform minimum quality standards of training. The Committee had not met for 4 years when I reestablished it as a 25-member body.

I broke a few precedents in selecting those I wanted to advise me. As a result, the Committee now has black and Spanish-speaking members for the first time in its 40-year history. I appointed public members who for the first time can vote along with the 10 representatives each from labor and management. And women members are now back on the Committee after a 34-year absence.

My overall mandate to the Committee was to strengthen apprenticeship—a goal that encompasses increasing the quality of the Nation's goods and services and reducing costs to the American consumer. With such an overview, the Committee has begun to examine the short-range administrative questions raised by the task force. One of these questions, as noted earlier, dealt with the reactivation of the Federal Committee. Other possible approaches to improving the apprenticeship system suggested by the task force that are before the Federal Committee for examination and consideration include questions as to whether we should:

- Redefine and broaden the base of apprenticeable occupations by including any systematic training plan in which a significant amount (2,000 hours or more) of learning is on the job in a tutorial relationship. We should question the traditional limitation on the scope of apprenticeship and look closely at the European countries which do not limit apprenticeable occupations as we do.
- Install apprenticeship preparatory courses in high school to encourage trade training. This idea is being tested in the District of Columbia through a pilot accelerated apprenticeship project cosponsored by the public school system and the Joint Carpentry Apprenticeship Committee. It provides training to seniors in high school and grants them 6 months' credit toward journeyman carpenter status if they complete the program and enter apprenticeship. This approach is significant because it brings to the attention of students the requirements of apprenticeship and the trades at a time in their lives when the students can do something about it.

The construction trades now account for nearly two-thirds of all apprentices and apprenticeship programs registered with the Labor Department or State agencies. Under an expanded and better balanced apprenticeship system this proportion could drop to one-third.

Apprenticeship's Potential

• Place increased emphasis on apprenticeable occupations other than the building and construction trades, such as the metal, printing, and service trades. The building and construction trades account for nearly two-thirds of the programs and individuals registered with the Labor Department or State agencies. Better public awareness of other apprenticeable occupations would certainly help to broaden the base of participation.

• Expand the apprenticeship trust fund concept where union and management each contribute financially to individual apprenticeship programs under a partnership arrangement.

• Register apprenticeship programs for 3-year periods only. This would require program sponsors and the registration agency to take a fresh look at successes and failures of the operation. The present practice of the Bureau of Apprenticeship and Training is to grant registration virtually forever once a program is accepted.

• Apply, wherever feasible, the results of innovative research and demonstration projects. Continuing research is required to keep apprenticeship standards responsive to changing occupational demands.

• Enhance the incentives for registering a program with the Federal Government. Under present regulations, a contractor who has an apprenticeship program must have it registered if he wishes to bid on Federal c. struction. But there are many ways around this requirement, and sponsors of registered programs must meet many demands not faced by those who have nonregistered programs.

• Establish a system of college participation and credits for apprentices who take related education courses during apprenticeship that are equivalent to college courses.

And there is one proposal made by the task force on which there is no question, the recommendation calling for the continuation and strengthening of the enforcement of regulations on equal employment opportunity in apprenticeship and training.

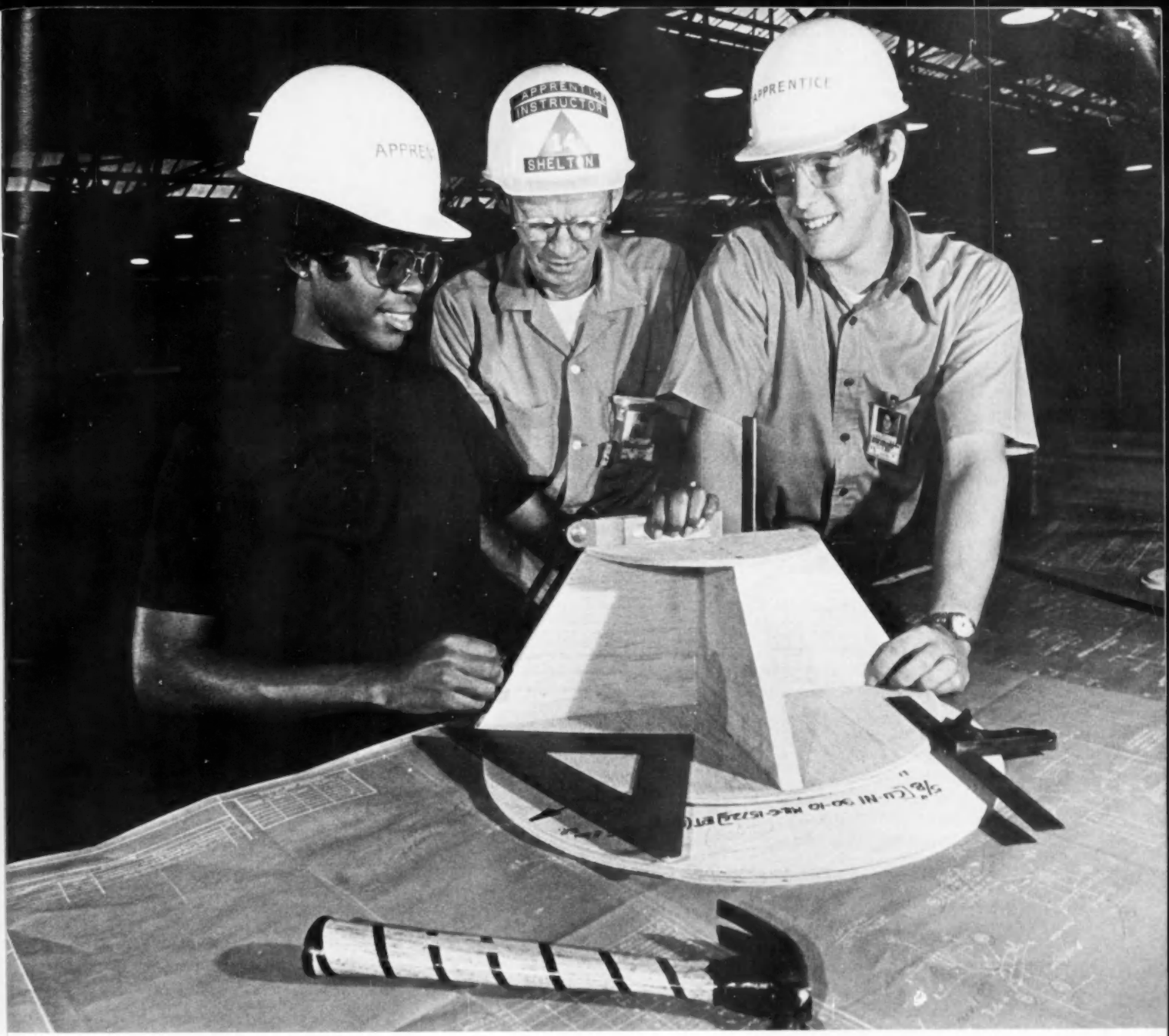
Labor Secretary Peter J. Brennan addresses the first meeting of the newly reactivated Federal Committee on Apprenticeship.

Minority Gains Cited

I think that on this matter of equal opportunity, there is no question but that apprenticeship has made some significant gains in terms of racial equality. The rate of participation by minority groups in registered apprenticeship programs has more than doubled in 6 years.

When minorities in apprenticeships were first counted in 1967, there were less than 6 percent. Our latest figures show that 6 years after, at the beginning of 1973, there were more than 14 percent, and new apprentices were entering at the rate of 17 percent. This is progress.

We have been working especially hard to open up apprenticeship opportunities for minorities in the building trades. In this effort, we have had the



cooperation of black organizations, contractors, and labor unions. Outreach programs to attract and prepare minority youth to become apprentices have recruited and registered 30,000 young people as apprentices since 1968.

Of course, some trades are doing better than others, but we are working on this problem and one of the first tasks I gave the Apprenticeship Committee is to find new ways to increase minority participation in apprenticeship programs.

Just as I am determined to see a continuing rise in the number of minority group apprentices, I am also determined to find a place for the working woman in apprenticeable occupations—in occupations not usually considered as "woman's work."

Certainly there are women in the trades as apprentices and journeymen today. But there should be more.

The Labor Department financed a 3-year study in Wisconsin on how to increase the number of women apprentices in the skilled trades and what to do about discrimination against women in apprenticeship. We have some useful answers from that study.

As a result, one of the first steps we have taken is to open up apprentice outreach programs for women. With the help of the Women's Bureau, we now have six pilot programs in as many cities preparing young women to take apprenticeship exams.

This effort has the cooperation of the trade union movement, business, industry, and community groups in the six cities: Boston, New York, Cleveland, Atlanta, Chicago, and Los Angeles.

Another result of the Wisconsin proj-

With the help of outreach programs, the number of minority apprentices in the building trades has increased substantially in recent years.

Apprenticeship's Potential

ect was to demonstrate the ability of women to enter a broader number of apprenticeable occupations. When the study started off in 1970, there were almost 400 women in Wisconsin in 10 apprenticeable occupations, with a heavy concentration in cosmetology. When it ended in 1974, women were in 50 occupations.

These thumbnail sketches for short-range initiatives that can be taken give an inkling of what apprenticeship is all about and what must be considered, discussed, and implemented. Some of these initiatives require but the stroke of a pen, if the apprenticeship community agrees. Others require legislation.

Long-Range Steps Proposed

The task force also proposed five long-range administrative initiatives that require immediate planning:

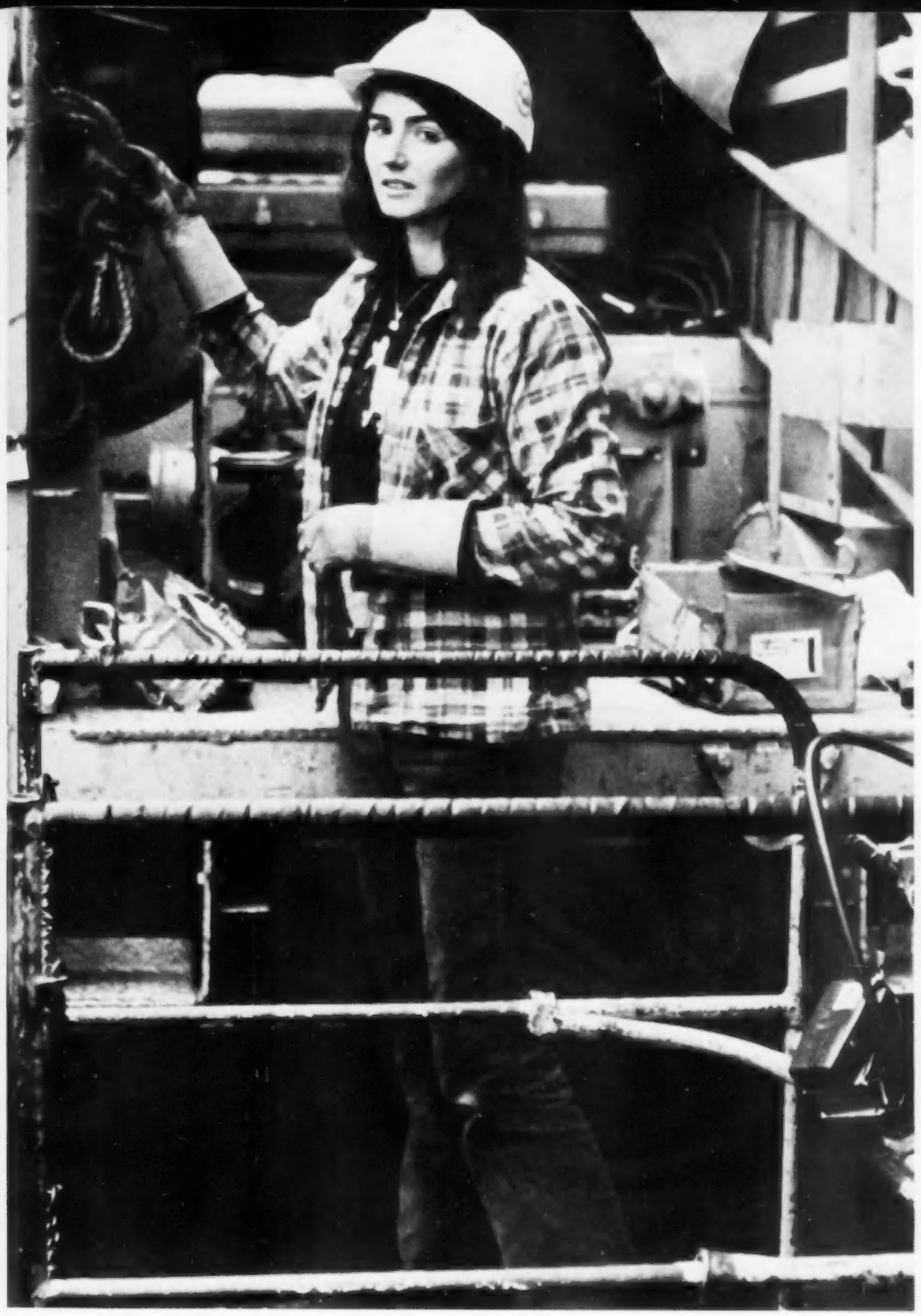
- Provide expanded and improved technical assistance for an improved apprenticeship system.
- Recommend a Presidential Executive Order directing participation by all Federal installations in apprenticeship programs to the extent practicable.
- Identify and solve problems of administration that have made some apprenticeship regulations ineffective.
- Make Federal money available to strengthen State apprenticeship councils in line with the Manpower Administration's decentralized structure.
- Establish State apprenticeship councils in all 50 States.

Recommendations for legislation to assist apprenticeship are, perhaps, the task force's most far-reaching and most provocative actions.

The first recommendation calls for use of tax credits to encourage employers to expand and improve apprenticeship. Under this proposal employers would be able to recover a substantial portion of specified training costs. Provision could be made for the recovery rate to be related to the time of greatest training cost for each apprentice, starting with 100 percent recovery for the first year of apprenticeship and ranging downward each succeeding year.

The second proposal would reimburse employers for registering their apprenticeship programs. The task force notes that "10 years of experience with the on-the-job training provisions of the Manpower Development and Training Act have shown the significant impact that even minimal reimbursement can make in the development and expansion of training programs." Employers would receive an annual registration certificate that they could "cash" by including it on their Federal tax return.

The third legislative recommendation calls for the issuance of a regulation requiring apprenticeship in all Federal contracts exceeding $500,000. There is ample precedent for the principle of mandatory apprenticeship—using Federal contracts to accomplish public goals. However, this is not a simple concept and must be given a lot of thought.



Women are making breakthroughs in a variety of apprenticeable occupations that traditionally have been dominated by men.

These task force recommendations could push apprenticeship in some important new directions. In this regard, one matter that demands immediate attention is the collection of statistics on apprenticeship. Any program or activity must know where it is before it can chart where it is going. The most "current" statistics on federally registered apprenticeship programs are for 1972, making them 21 months old. Hard facts on what happened in apprenticeship in 1973 or 1974 are still not available. This statistical lag is one of the reasons something must be done about financing State apprenticeship councils, since the Federal program relies on State agencies for information on what transpires under State apprenticeship plans.

Obviously, the task force recommendations cover a wide range. Some are relatively simple and can be implemented quickly with little dislocation to the present apprenticeship system. Others are far-reaching and require intensive study and careful consideration. In the long run, some of the proposals may prove unworkable or inadvisable. Overall, however, it is clear that these recommendations have vast potential. Handled properly, they could produce a system of formal training in the United States linked with the public schools and colleges and operated by labor-management committees with joint financing—a system which would routinely provide untrained American workers with skills fitting their desires and talents and the needs of the economy.

There could be a million or more registered apprentices in this system. With demand for quality products rising rapidly and growing competition in the international market, a training system that produces less than a quarter of the Nation's skilled workers—as does the present system—is far from adequate. Although the number of building and construction trades apprentices would increase, they should not represent more than a third of all apprentices.

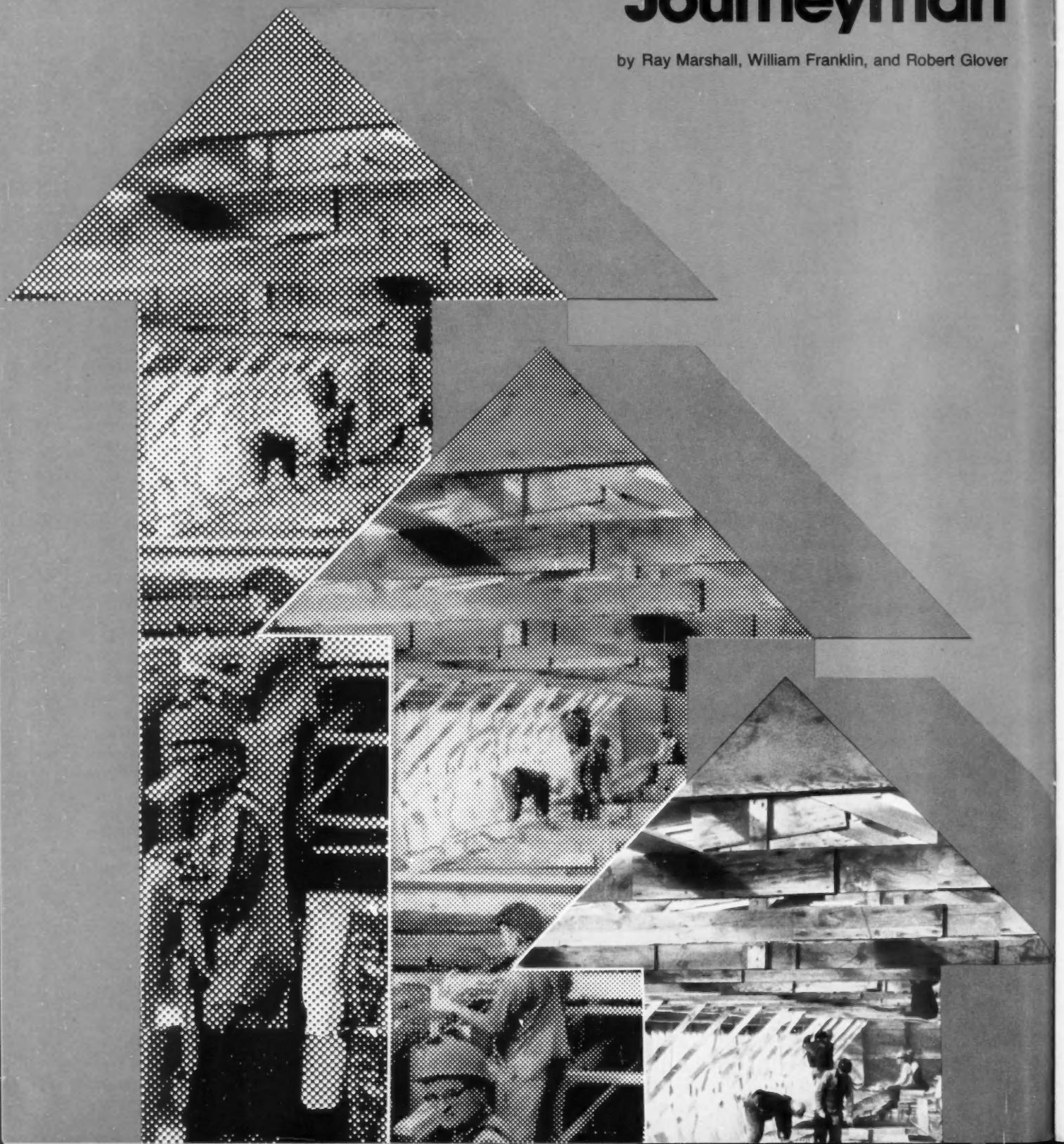
'Fringe Benefits' Seen

In addition to producing more skilled workers, a bigger and more responsive apprenticeship system could have a number of other beneficial effects. It might raise the status of the blue-collar worker and elevate the public's view of the merits of working with one's hands. It could hasten the day when parents consciously point their offspring to a career in the trades, crafts, and services. It might mean better training and career opportunities in occupations that call for white collars or the technician's smock. And it could bring us to the point where counting minorities and women in apprenticeship is only an irrelevant statistical exercise.

Apprenticeship has proved its ability to supply the Nation with qualified skilled labor. It is now time to apply this ability on a broader and more significant scale. □

Paths to Construction Journeyman

by Ray Marshall, William Franklin, and Robert Glover



Study Finds Apprenticeship Graduates Fare Better Than Workers Trained in Other Ways

Few sectors of the American labor movement are discussed more and understood less than the building trades. Among the least understood issues is the matter of entry into building trades unions. Basically, one can become a journeyman (a person who receives the full union wage rate) craftworker in one of two ways—by graduating from an apprenticeship training program or by entering the union through direct admission to journeyman status. Most union officials prefer the apprenticeship route. However, recent studies have shown that although the percentage of union members who were trained in apprenticeship varies by craft and geographic area, overall, most building trades workers have picked up their skills outside the apprenticeship system—in nonunion shops, as helpers or laborers, or in military or other training programs.

Different Methods Studied

The variety of routes—formal and informal—that can lead to journeyman status raises questions of the adequacy, the equity, and the results of training in the construction trades. To find answers to some of these questions, the Manpower Administration contracted with the Center for the Study of Human Resources at the University of Texas to conduct a nationwide study of how workers in the skilled construction trades are trained and the relative merits of the different methods of becoming a journeyman. Data for the study,[1] *Training and Entry into Union Construction*, were drawn from fringe benefit records and interviews with more than 1,700 workers, union officials, contractors, and other knowledgeable individuals in Atlanta; Austin, Tex.; Chicago; Columbus, Ohio; Houston; Jackson, Miss.; New York City; Oakland; and San Francisco. Included in the sample were personal interviews with 1,234 union journeymen. The study covered six basic construction trades—bricklaying, carpentry, electrical work, ironwork, plumbing and pipefitting, and sheet metal work.

Many construction unions rely on apprenticeship programs to provide a nucleus of well rounded journeymen as well as future supervisory personnel. Since apprenticeship training is broader than the training typically available through informal methods, the unions also are able to use apprenticeship programs to control, to a limited extent, the number of fully qualified craftworkers in the industry. This is particularly evident in the mechanical trades—electrical work, plumbing, air-conditioning, and sheet metal work—where skills are most difficult to pick up informally. In other crafts, such as carpentry, ironwork, and many of the trowel trades, unions have less ability to control entry through the apprenticeship system due to the existence of nonapprenticeship sources of skill acquisition.

For the vital purpose of controlling their jurisdictions, then, unions admit many—in some cases, most—members "through the back door," that is, without serving formal apprenticeships. This phenomenon is most noticeable in tight labor markets, where union workers suffer little unemployment and thus voice little opposition to the admission of new members. Most workers who enter unions through nonapprenticeship routes either are upgraded to journeyman status from helper or laborer categories or are admitted as journeymen when unions organize nonunion shops. The latter entry method is especially important in the South and other areas where unions face effective competition from substantial nonunion employers.

Numerous craftworkers enter unions without serving formal apprenticeships by meeting various skill and experience requirements. It is not uncommon for such people to have acquired construction skills by working under temporary union permits during times when the volume of business was greater than the unions could staff with their own members. Also, most locals allow members of other locals within the same union to transfer their memberships; the right to transfer is seldom absolute, however, particularly when there is substantial unemployment among local members.

Journeymen Interviewed

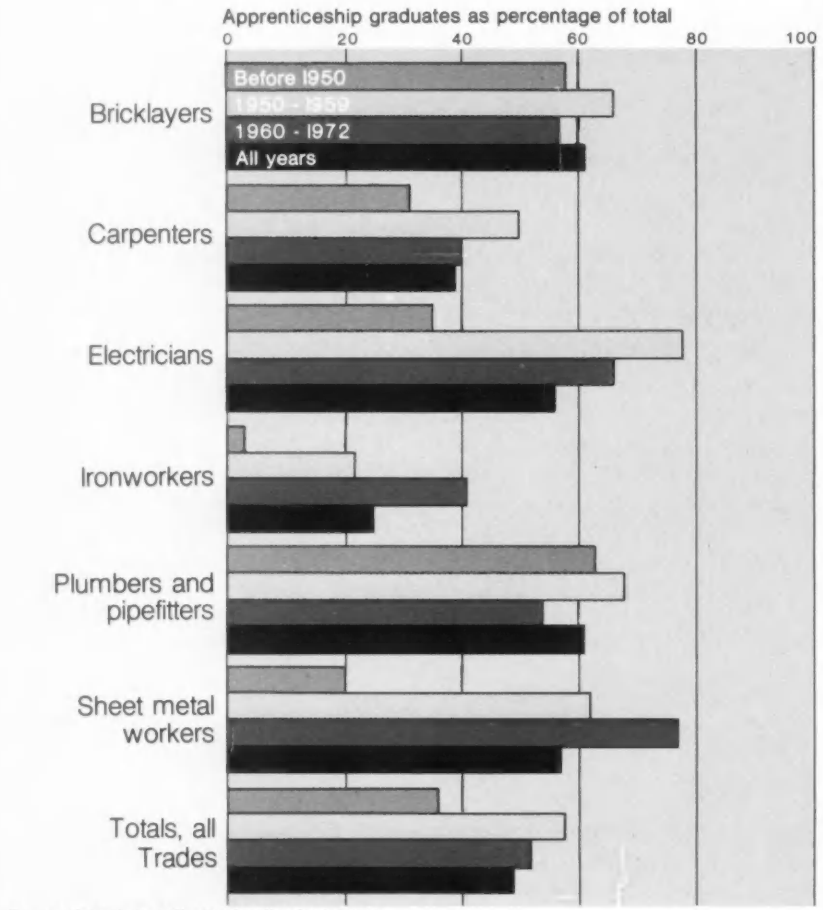
Study interviews with union officials and rank-and-file journeymen indicate that admissions procedures vary widely among crafts and within local labor markets, even differing somewhat from city to city among locals within the same union. Particularly wide variation was found among the crafts on policies regarding direct admission of journeymen and extension of temporary permits to nonmembers. There was an extensive array of age requirements, tests, interviews with union officials, experience requirements, vouchers for proficiency, probationary periods, membership votes, and fees. Apprenticeship entry standards in the unions studied were much more similar from craft to craft. Minimum education requirements, age ranges, examinations, interviews, and fees were required by

Ray Marshall and Robert Glover are director and assistant director, respectively, of the Center for the Study of Human Resources at the University of Texas; William Franklin is assistant professor of economics at Florida International University. They are the authors of the study discussed in this article.

[1] *Training and Entry into Union Construction* is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151, for $6.50 for a paper copy and $1.45 for microfiche (specify accession number PB 229937/AS). Please enclose payment with order.

Chart 1

Apprenticeship Graduates Among Interviewed Journeymen, by Period of Entry



Source: Interviews with construction journeymen.

Construction Journeyman

practically all locals, although exact requirements differed somewhat even within the same union.

On the whole, the mechancial trades seemed to impose the most difficult requirements for membership and the carpenters and bricklayers the least difficult. This finding is not surprising. It indicates that the most stringent entry standards are imposed by unions which can most effectively control their jurisdictions by controlling access to training, while unions with the least control over training opportunities attempt to control their jurisdictions by extending membership to most trained workers.

Apprenticeship has become a more important source of training for construction careers over the past generation, the study found, but large numbers of construction workers still enter unions "through the back door." In fact, although the percentage of surveyed journeymen in all trades who entered through apprenticeships increased in the 1950's over the pre-1950 period, the trend was reversed in two trades during the 1960's (see chart 1). Only in ironwork and sheet metal work did apprenticeship play a larger role in training in the 1960's than in the 1950's. This reversal of the long-run trend probably is only temporary and can be traced to the generally tight construction labor markets of the 1960's and the concomitantly relaxed attitude of unions toward admission of journeyman members.

Of journeymen interviewed in the study who were not graduates of apprenticeship programs, most received their training informally. About 70 percent either were upgraded from helper or laborer categories or received informal on-the-job training in nonunion shops.

The study reveals a marked lack of formal training opportunities outside of apprenticeship programs. Fewer than 10 percent of those interviewed had received trade-related instruction in either public or private vocational education classes, military training programs, or government-sponsored projects, while 11 percent claimed to have transferable work experience in other industries such as shipbuilding or oil before joining the building trades unions. Fifteen percent of the nonapprenticeship-trained journeymen said they had had no training at all before they joined the unions. Most of these persons had gained their initial experience by working on temporary permits, gradually acquiring enough skills to qualify for union membership.

Minority membership in building trades unions has increased significantly in recent years (see chart 2), the study shows, among both apprenticeship- and nonapprenticeship-trained journeymen. Although as late as 1970 minorities were unionized less in construction than in any other industry, the upward trend in minority memberships in the construction crafts is un-

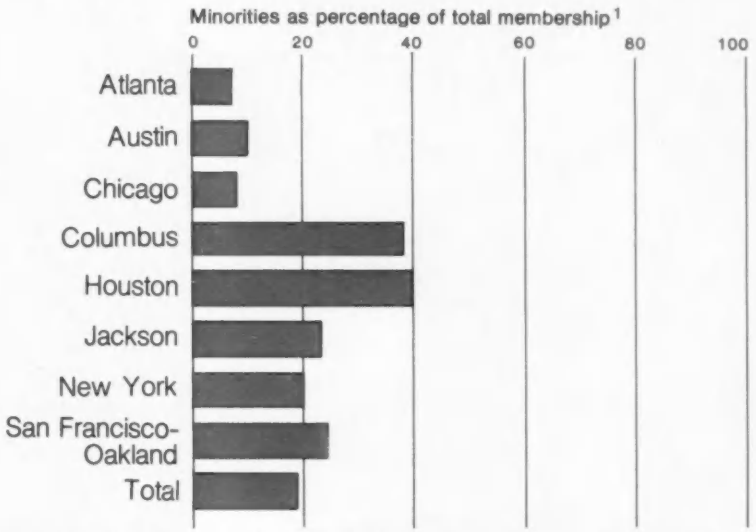
mistakable. Minorities comprised 14 percent of the surveyed journeymen who entered unions between 1960 and 1972, compared with only 6 percent before 1960. Furthermore, 18 percent of the nonapprenticeship-trained journeymen who entered the unions during the 1960's were minorities—a finding that undercuts the position of those who assert that the unions have tried to "close the back door" to minorities. Quite the contrary: The pressures for integration may have persuaded many unions that the admission of qualified minority journeymen is the quickest way to achieve racial balance.

It should be emphasized, however, that racial integration of the building trades is unlikely to result simply from the organization of nonunion minority workers. Although there are large numbers of minority craftworkers in the nonunion sector of the construction industry, the limited evidence available suggests that few are to be found in the mechanical trades. Most minorities still are concentrated in the trowel trades and in laborer categories, even in nonunion shops; if unionized, these workers would be accepted in unions in which minorities are already heavily represented rather than in the mechanical trades, where their participation is low (see chart 3).

As noted earlier, apprenticeship typically offers both practical training and theoretical grounding for a broad range of skills within a craft rather than narrow training in only one or a few specialty areas. Journeymen without apprenticeship training, on the other hand, tend to pick up their skills on the job, typically in a haphazard fashion, and often fail to acquire the breadth of training and the understanding of the theory of their trade that characterize apprenticeship training.

Chart 2

Minorities in Building Trades Unions, by City, 1970

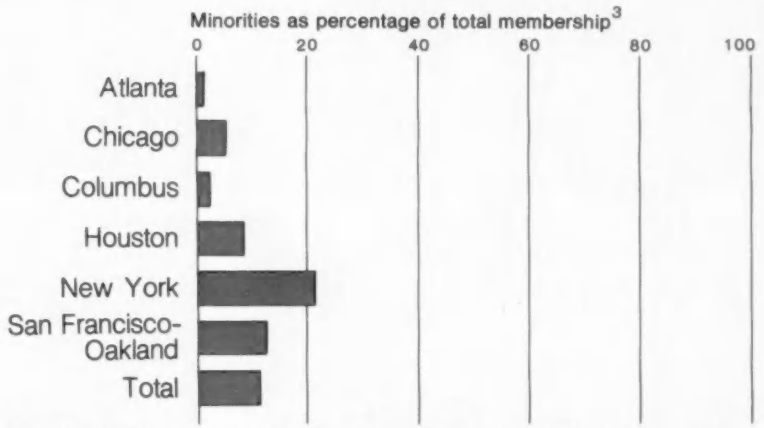


[1] Includes only members of unions which reported to Equal Employment Opportunity Commission; thus these data are understated for all cities.

Source: Equal Employment Opportunity Commission data.

Chart 3

Minorities in Mechanical Trades[1] Unions, by City[2], 1970



[1] Mechanical trades include boilermakers, electrical workers, elevator constructors, ironworkers, plumbers and pipefitters, and sheet metal workers.

[2] Separate data for the mechanical trades not available for Austin or Jackson.

[3] Includes only members of locals which reported to Equal Employment Opportunity Commission.

Source: Equal Employment Opportunity Commission data.

Construction Journeyman

Since employment stability in construction often hinges on a worker's ability to perform a variety of tasks rather than a specialty, it is reasonable to suppose that the broader the worker's training, the more work will be available to that worker. Also, since workers occupying supervisory jobs need to know about all of the work for which they are responsible, broadly trained workers are more likely to occupy supervisor and superintendent positions than are narrowly trained specialists. Thus, it would be expected that apprenticeship-trained journeymen work more regularly and advance more often and more rapidly to supervisory positions than informally trained journeymen. This expectation was supported by several independent findings of the study.

To determine whether apprenticeship graduates worked more steadily than other journeymen, representative samples of active journeymen were drawn from pension, vacation, and welfare fund reports. In comparisons of hours worked annually, apprenticeship graduates had substantially greater employment stability than their informally

Journeymen construction workers who have come up through the apprenticeship system get more work and are more likely to become supervisors than those trained in other ways.

trained counterparts. In 32 of the 41 locals surveyed, apprenticeship-trained journeymen worked consistently and significantly more than journeymen trained in other ways, while in only three locals did informally trained journeymen work more. Data from six locals yielded mixed or inconclusive results.

These data lend strong credence to the oft-expressed claim that apprenticeship graduates, because of their broader preparation and range of skills, work more regularly than workers who have not had the benefit of such training. The evidence strongly supports the view that without formal training, workers are more apt to become narrowly trained specialists who lack the skills required on many jobs and thus are prone to considerable unemployment.

The study also compiled data from various sources to test the widely held belief that apprenticeship graduates advance more often and more rapidly to supervisory positions, compared with other journeymen. In results of surveys of contractors made in the study, 18 of 28 comparisons showed that apprenticeship graduates were significantly more heavily represented in supervisory positions than in the local as a whole. In only two cases was the reverse true, while eight comparisons yielded inconclusive results. Data from the journeyman interviews corroborated results from employment surveys. Although about three-fourths of the journeymen interviewed in the survey—regardless of training background—had had some supervisory experience, apprenticeship graduates tended to work exclusively as supervisors to a greater extent (26 percent to 19 percent) than informally trained craftworkers.

Not only did apprenticeship graduates work more often as supervisors, they also advanced into supervisory positions more quickly and at an earlier age than informally trained journeymen. Apprenticeship-trained supervisors had taken an average of 4.6 years from the time they attained journeyman status to the time they first worked as supervisors, compared with 6.9 years for nonapprenticeship-trained supervisors.

The evidence gleaned from the study indicates that, in spite of its critics, apprenticeship is a vital, effective, and increasingly important source of training for the skilled construction trades. The study demonstrates that the apprenticeship system constitutes the best form of training now used in the building trades, in the sense that it trains workers for a wide variety of construction skills, rendering its graduates less vulnerable to unemployment and more likely to advance into supervisory jobs than their informally trained counterparts.

Outreach Effort Endorsed

These findings constitute an endorsement of the wisdom of the outreach programs designed to recruit minority youth for participation in apprenticeships. Largely as a result of these efforts, minority participation in apprenticeship programs has grown impressively in recent years, affording minority youth increasing opportunities to acquire skills suited for lifetimes of gainful and meaningful work. Further, the outreach results have demonstrated that it is not necessary to reduce skill standards or to dilute the quality of apprenticeship instruction in order to bring more minority youth into the system.

Although the study findings are very favorable to the apprenticeship system, they should not be interpreted to mean that the "back door" to union membership should now be closed to minorities. In the first place, it is unlikely to be closed anyway; as noted previously, it constitutes an important means by which unions extend control over their jurisdictions. But even if this were not the case, simple equity dictates that policies used to admit nonminorities should also apply to minority groups.

However, in view of the advantages which formal training in construction conveys, minorities (and nonminorities, for that matter) who become union members without benefit of apprenticeship would be well advised to avail themselves of the journeyman upgrading programs that now exist in most of the unions studied. These programs, which usually are demand-based, offer numerous opportunities to learn new skills or brush up on old ones and thus to increase the employability of the journeymen who take the time to attend. Such programs may act to offset the disadvantages currently faced by many union journeymen whose employability is constricted by their limited skills.

Construction apprenticeship programs have drawn criticism for their high entry standards and lengthy periods of indenture. Certainly, the apprenticeship system has much room for improvement; but the evidence indicates that, on the whole, it has served its graduates well. While entry standards unrelated to the work should be eliminated or improved, and unreasonably lengthy programs should be shortened, these actions should be undertaken only after careful study and then only if the high standards of skill training and productivity will not be sacrificed. □

News & Notes

The U.S. Department of Labor has issued affirmative action regulations designed to expand employment opportunities for handicapped persons in Federal contract work. The regulations potentially affect some 12 million handicapped persons and hundreds of thousands of Federal contractors. The regulations require that Federal contracts of $2,500 or more must have affirmative action clauses for employment of the handicapped. For contracts extending more than 90 days, the contractor must prepare an affirmative action program and make it available to all employees.

* * *

The level of income used to determine eligibility for manpower programs funded by the Department of Labor has been raised from $4,300 to $4,550 for a nonfarm family of four living in the continental United States. Income levels also were raised by varying amounts for families of other sizes and for those living in Alaska and Hawaii. The new levels will be used to establish eligibility as a poor or disadvantaged person for programs under the new Comprehensive Employment and Training Act.

* * *

Robert C. Goodwin, whose 44 years of public service included more than a quarter century in top administrative positions in the employment and the unemployment insurance services, has retired from the Manpower Administration to become associate executive director of the Interstate Conference of Employment Security Agencies. Goodwin in 1945 was awarded the Medal of Merit, the highest Presidential civilian citation, for his service as executive director of the War Manpower Commission. For 25 years Goodwin was the Nation's top administrator of programs to protect the job security of working men and women, first as director of the United States Employment Service, then, beginning in 1948, as the first and only administrator of the Bureau of Employment Security. In 1969, when this bureau was reorganized into two units—employment service and unemployment insurance—Goodwin was appointed administrator of the Unemployment Insurance Service.

A training academy for city employees is being set up in New York. The Urban Academy —thought to be the first of its kind in the Nation—will be a joint venture of the city government and the City University of New York. Courses will be offered in urban sociology, psychology, personnel management, economics, accounting, computer science, and government.

* * *

Job Corps recruiting in Baton Rouge, La., is getting a boost from billboard advertising donated by local businessmen.

* * *

Women make up 27 percent of all students now enrolled in the final 3 years of pharmacy schools, according to the American Association of Colleges of Pharmacy.

* * *

The Federal Committee on Apprenticeship, recently reactivated by Labor Secretary Peter J. Brennan, now has minority group members for the first time in its 40-year history and its first women members in 34 years. Brennan appointed four blacks, a Mexican American, and three women to the 25-member committee, which is chaired by F. Ray Marshall, a national authority on apprenticeship from the University of Texas. Marshall is 1 of 5 public members of the committee, which also is comprised of 10 members each representing labor and management. The committee, an advisory group to the Secretary of Labor which was first established in 1934, had been inactive for more than 4 years. Brennan said he would ask the group "to suggest ways to expand and improve apprenticeship programs."

* * *

Women will be hired in surface-mining operations of the Hudson Bay Mining & Smelting Company's Flin Flon and Snow Lake base metals mines in northern Manitoba, Canada, as facilities and vacancies become available, the Wall Street Journal reports. "Women could be employed in the mill, zinc refinery, copper smelter, machine shop, construction, warehouse, and in security services," the company said.

Supertankers Turn Taps To Reveille

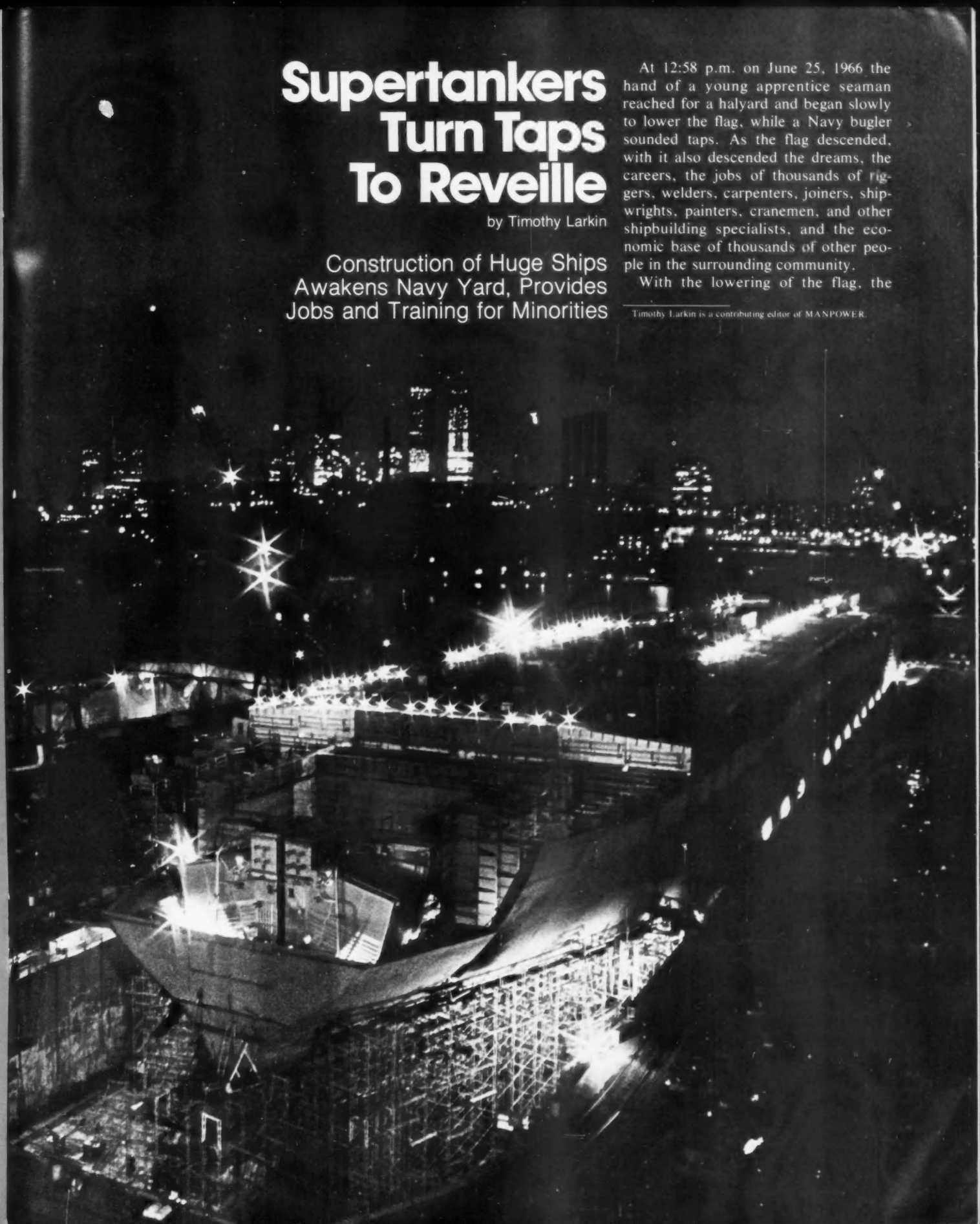
by Timothy Larkin

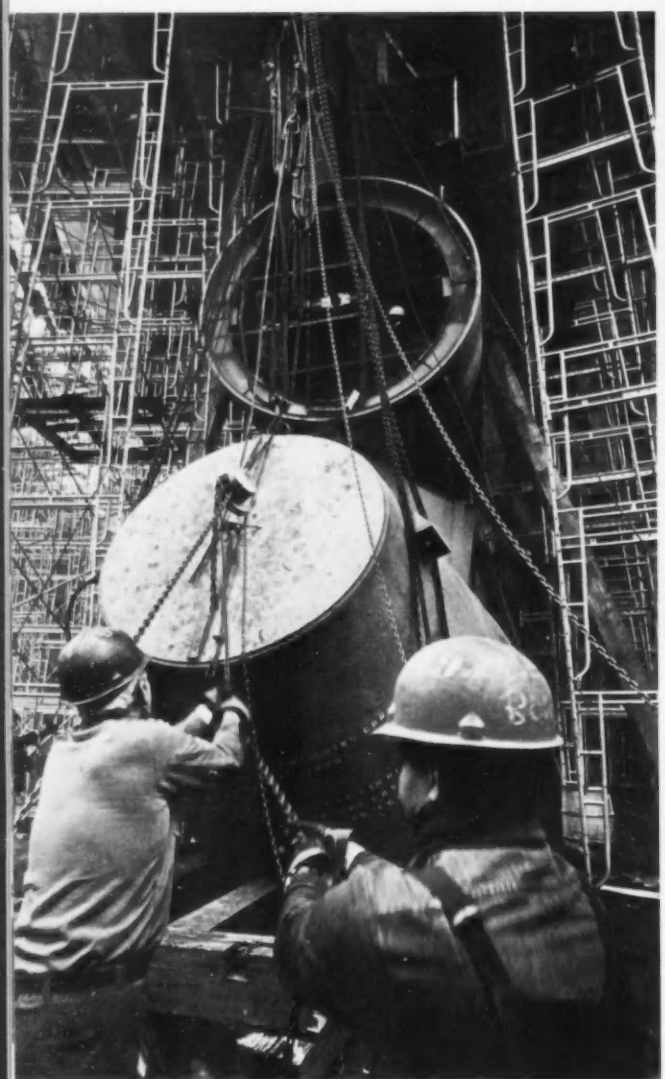
Construction of Huge Ships Awakens Navy Yard, Provides Jobs and Training for Minorities

At 12:58 p.m. on June 25, 1966 the hand of a young apprentice seaman reached for a halyard and began slowly to lower the flag, while a Navy bugler sounded taps. As the flag descended, with it also descended the dreams, the careers, the jobs of thousands of riggers, welders, carpenters, joiners, shipwrights, painters, cranemen, and other shipbuilding specialists, and the economic base of thousands of other people in the surrounding community.

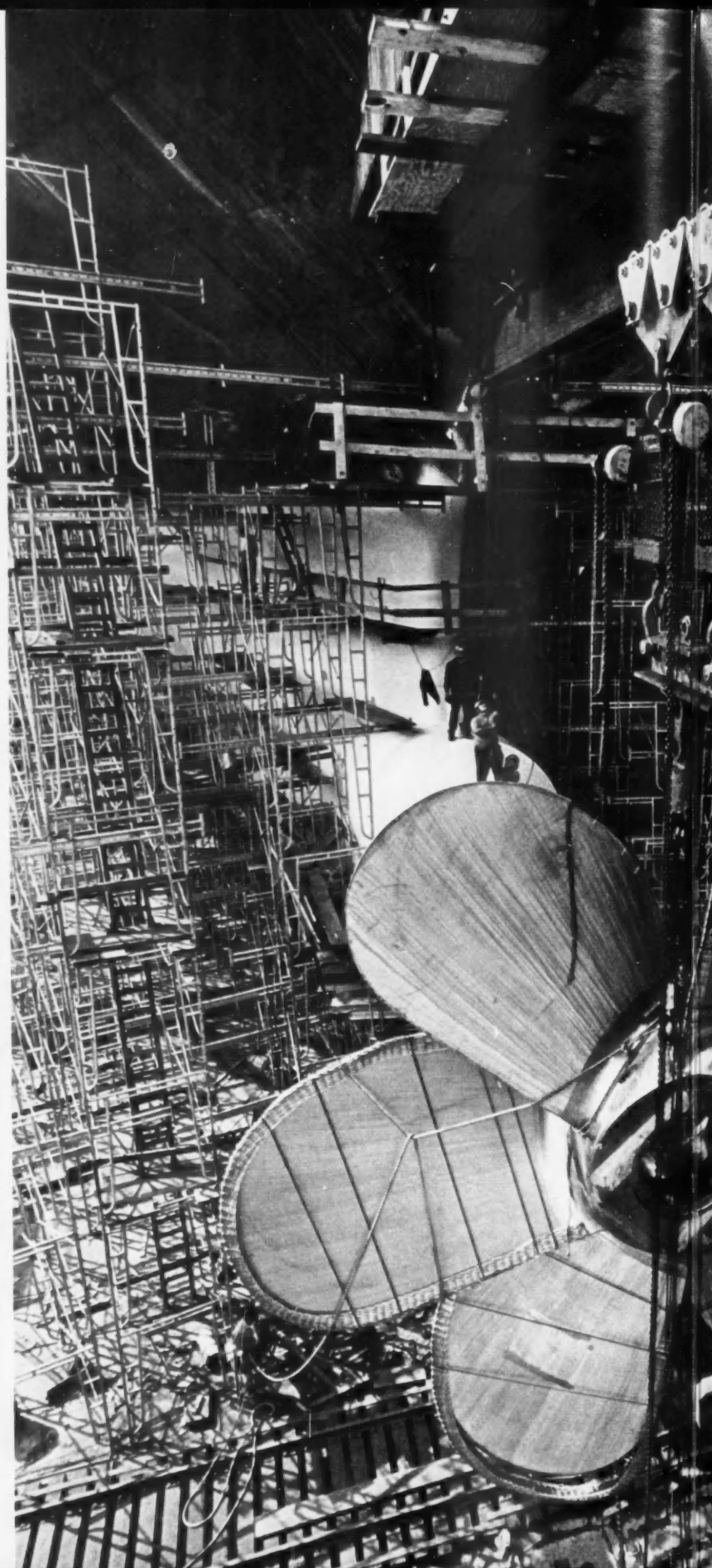
With the lowering of the flag, the

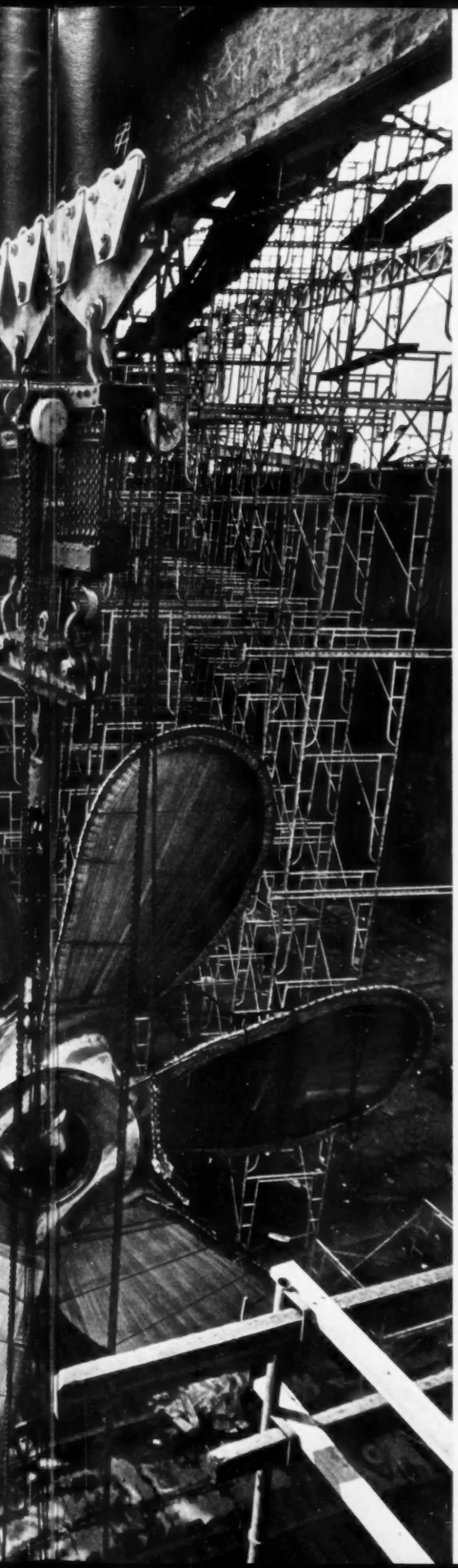
Timothy Larkin is a contributing editor of MANPOWER.





Photos by James Weber





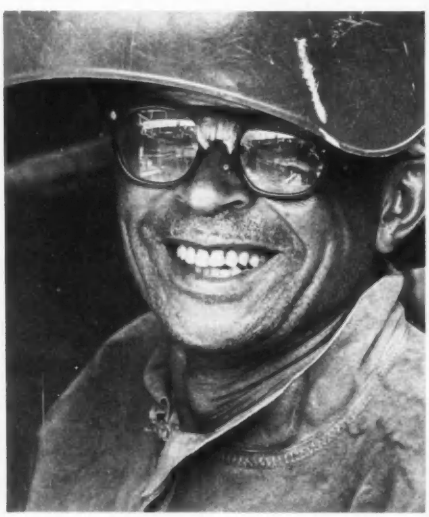
Supertankers

Brooklyn Navy Yard was officially closed. Since 1801, the Yard had contributed far more than its share to our legends of pain and victory with Brooklyn-built fighting ships such as the USS Monitor, our first ironclad warship; the USS Maine, whose sinking in Havana harbor started the Spanish-American War; the USS Arizona, whose sinking at Pearl Harbor started our involvement in World War II; and the USS Missouri, on whose deck that involvement ended.

Within hours after the last note of taps had died away, what at its peak had been a human beehive of 70,000 men and women laboring 7 days a week around the clock building hundreds of World War II fighting ships was 217 acres of desolation, its drydocks abandoned, the great gantry cranes frozen against the sky in their last motion.

Almost exactly 7 years later another ceremony was held at what is still designated as the Brooklyn Navy Yard: The christening of the T T (for turbotanker) Brooklyn, at 225,000 deadweight tons the largest ship ever built in the United States up to that time and the largest ever to fly the American flag.

Supertankers



The first ceremony was an occasion of unalloyed tears and regrets, of a tradition guttering out. The second differed not only in spirit, but in dimension. For the T T Brooklyn symbolized more than the rebirth of shipbuilding in Brooklyn. It symbolized a national commitment, spurred by the energy shortage, to provide superships to carry America's imports of gas and oil. Reflecting that commitment, the Merchant Marine Act of 1970 had made it possible for the U.S. Maritime Administration to provide construction subsidies for tankers, liquefied natural gas (LNG) carriers and other bulk carriers, as well as for passenger liners and freighters plying regular routes.

One of a number of firms involved in the Nation's revived shipbuilding effort is the Seatrain Shipbuilding Corporation, a subsidiary of Seatrain Lines, Inc., which owns and operates one of the Nation's largest fleets of container ships. Even before the new subsidy program was announced, Seatrain had decided to build supertankers, and to build them in the Brooklyn Navy Yard. The Corporation therefore leased land from the nonprofit organization set up to find industry for the Yard after New York City had purchased it from the Federal Government for $23.5 million. Seatrain then secured a commitment from Exxon on the basis of which it plans to build a total of four 225,000-ton VLCC's or very large crude carriers.

Seatrain's decision was a bold one, for a number of reasons. First, tankers larger than 200,000 deadweight tons had never been built in the United States. (Deadweight tonnage refers to the carrying capacity of a ship. It excludes the weight of the ship itself, referring instead to the tonnage of cargo, fuel, stores, and ballast that a

ship can carry before the safety mark, or Plimsoll line, is submerged.)

Second, it was necessary to sink over $30 million in rebuilding many of the obsolete Brooklyn Navy Yard facilities and seeking out and installing advanced supertanker assembly-line technology from all over the world. For example, the automatic butt welders came from the Swedish Hebe Company; computer controlled flame-cutting and plate-punching machines from the American Airco Corp.; a sophisticated 750-ton ring press capable of cold-forming shell plates up to 50 feet long from the Japanese IHI Corp.; 48-wheel, 12-axle transporters able to move ship sections weighing up to 200 tons from the German King/Scheurle Company. Only the two cavernous graving docks in which each ship is assembled did not need to be rebuilt—they will hold the 1,094-foot 4½-inch ships with inches to spare.

Skilled Workers Required

Third, it was necessary to combine with minimum lost motion all new processes and facilities into a system capable of quickly moving enormous sections and subsections and, then combining them with precision.

And, perhaps most difficult of all, a skilled work force had to be assembled. By the time Seatrain leased the Yard, almost all of the shipbuilders who had helped assemble the mightiest war fleet in history were gone. They had retired, or moved, or transferred to other Navy facilities or to other jobs in other areas.

At the same time that skilled shipbuilders were in short supply, the areas surrounding the Yard—Bedford Stuyvesant, Fort Greene, and Williamsburgh—were depressed economically.

Seatrain decided to see if ways could be found to train unemployed and largely unskilled workers in the specialized trades required for building the supertankers. Following up on this decision, it applied to the Manpower Administration for training and upgrading assistance under the terms of the Job Opportunities in the Business Sector (JOBS) Program, a combined effort of the Federal Government and the National Alliance of Businessmen (NAB) to provide jobs in the private sector for disadvantaged persons. Under JOBS, participating companies, such as Seatrain, hire and train the hard-core unemployed through contracts with the Manpower Administration that call for the companies to be reimbursed for the extra costs involved in employing the disadvantaged.

In October 1971 the Manpower Administration granted Seatrain Shipbuilding a contract committing $768,000 for a JOBS Program. Seatrain used funds from this contract to hire and train 225 unemployed persons in entry-level jobs, and to upgrade the skills of 107 workers already on the shipyard payroll.

More than 90 percent of these workers were from minority groups, and the majority lived in the Brooklyn area. (In fact, 8 of every 10 of all workers building the supertankers are from minority groups and most received some type of training.)

Of the 225 people hired for entry-level positions under the JOBS contract, 142 stayed on the job long enough to complete the approximately 6-month training period. Most were trained as steamfitters and pipefitters. All but five of the 107 workers being upgraded—most of whom also were steamfitters and pipefitters—completed their training.

In addition to about 400 to 900 hours of on-the-job training in their occupational specialties, the new hires re-

ceived 320 hours of job-related classroom education, 40 hours of special counseling to deal with individual problems, and 40 hours of orientation. Orientation included instruction in the special language of ships and shipbuilding. "Everything from where's port to where's starboard," Seatrain training manager Henry Dennis explained, "to how to find the place when somebody tells you, 'It's at lateral bulkhead number 53, 12 feet 6 inches from centerline.' "

New hires began at $2.75 an hour, moved up upon completion of their training to $4.20 as third-class mechanics (the generic name for all skilled shipbuilding trades), then to $4.40 as second-class mechanics, and finally to $4.80 as first-class mechanics. Five of those hired through the JOBS Program have been promoted to supervisory positions paying from $12,000 to $14,000 a year.

Under the original program, it was possible to advance from one class level to another as quickly as an individual's skill permitted. Under a new JOBS contract involving 20 entry-level and 20 upgrading positions (all for shipfitters), both the pay rates and the schedule for advancement differ. Pay rates now range from $3.97 an hour for trainees to $5.15 for first-class mechanics, who gain this status after 2 years (4,200 hours) of training and on-the-job experience. This well defined advancement schedule has the major advantage of "assurance," according to Dennis. "That way you're giving the guy a road map," he said. "He knows where he should be. There's reinforcement at each of the various stages up the ladder."

A number of the JOBS participants have taken advantage of the training they received to move on to better jobs. One former trainee who is still with Seatrain put it this way: "I'm a second-class mechanic now, and in 6 months I'll be ready for first class. But that's only the beginning. If I leave here and get a job as a specialty welder, like with atomic plant valves, I can pull down $7 or even $8 an hour. And that's just what I plan to do."

As part of its efforts to open up job opportunities to people with severe employment problems, Seatrain has recruited a small number of ex-offenders from the Rikers Island prison. Dennis sees "two big advantages" for Seatrain in hiring these former convicts. One is that they learned some job skills—metal fabrication, welding, blueprint reading—while in prison. "That's important," Dennis said, "but more important, they come here highly motivated and well disciplined. They know that without this kind of opportunity they're dead-ended for good. So they make good workers, and they are progressing up the ladder."

School Ties Developed

Dennis, who once worked for the National Alliance of Businessmen locating jobs for veterans, said that as a result of its determination to draw the bulk of its work force from the surrounding area, Seatrain has developed a close working relationship with local educators.

"It used to be that by the time a training program was set up, it was too late," he said. "The jobs had been filled, or the work was done. Now we help the schools and adult education programs keep in touch with what's needed and what's going on. We tell them, 'Look, we're going to be needing people for a certain trade, say shipfitting. What about changing the training program so you can train more in this skill?' And we're involved in an Employers' Advisory Council. We give advice, for example, on how to use skill training centers more effectively."

Dennis believes that manpower programs are moving in the right direction under the new Comprehensive Employment and Training Act (CETA), which gives primary responsibility and authority for designing and operating job training programs to State and local governments.

"Under CETA," he said, "we have more flexibility. For example, more time to teach English as a second language. We can respond to the needs as we find them. And that makes sense. After all, who has a better feeling for what's going on in New York and what's needed in New York than the mayor?"

Although the Brooklyn Navy Yard has yet to come back to its former status as a major employer—the 23 companies that now lease space in the Yard employ a total of less than 4,000 persons, of whom 65 percent work for Seatrain—the impact of the yard, and particularly of the supertankers, has a measure beyond mere numbers. As Warren Wechsler, former assistant administrator of New York City's Economic Development Administration, said: "The jobs in the Brooklyn Navy Yard are special because they are largely held by blacks and Puerto Ricans, very few of whom had any skills before they learned to build ships.

"When the tanker Brooklyn was launched," he recalled, "there was a strong sense of pride among these workers from the ghetto areas. This was something tangible, this huge tanker. This was something they had built with their hands. It can give new hope to people in similar circumstances who do not have jobs." □

Tomorrow's Jobs: The View From Now

by Edwin Harris

Biennial Handbook Sees Sharp Rise in Demand for Professionals, Technicians

A recent Gallup poll found that nearly 1 out of 4 college students plans to enter the teaching field. If they carry out their intentions, the polling organization pointed out, there would be an even greater surplus of teachers than there is now. This estimate gets strong support from the new OCCUPATIONAL OUTLOOK HANDBOOK, a mammoth volume on job guidance published every 2 years by the U.S. Department of Labor's Bureau of Labor Statistics. It cautions that "prospective teachers are likely to face keen competition for jobs."

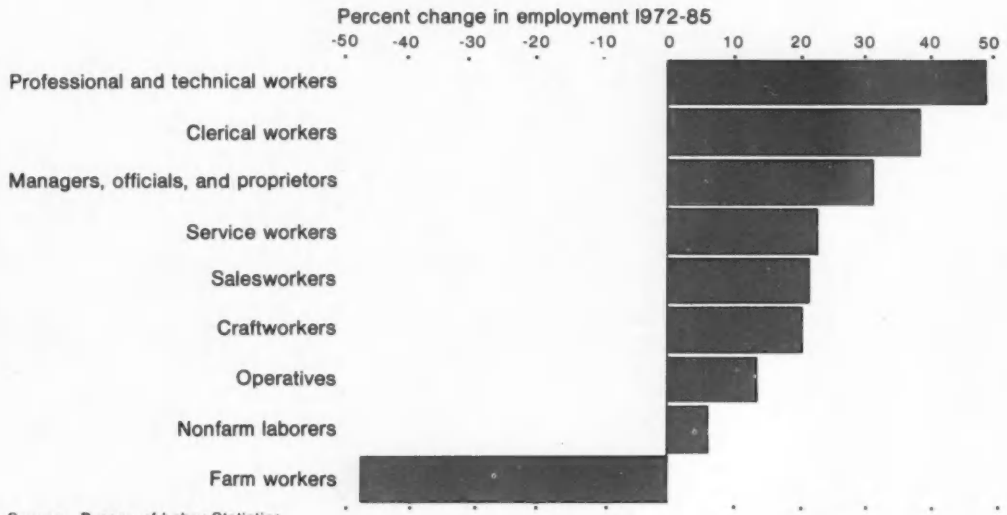
This bit of advice is one of the reasons the Handbook has become a valuable tool for students, counselors, vocational guidance personnel, manpower planners and administrators, and, for that matter, anyone who is contemplating a change in his or her occupational field.

Want to be a blacksmith? The Handbook says that about 10,000 blacksmiths were employed in 1972, but demand for their skills is expected to decline slowly. As it does for more

Edwin Harris is a member of the Manpower Administration information staff.

Chart 1

Through the Mid-1980's Employment Growth Will Vary Widely Among Occupations



Source: Bureau of Labor Statistics

'New technology, new products, and changes in living standards constantly affect the types of jobs available.'

Tomorrow's Jobs

than 850 other occupations, the Handbook discusses the nature of the work in blacksmithing, training and educational requirements, earnings, advancement opportunities, and geographic location of jobs.

This year, the Handbook has taken on a new look. Instead of grouping occupational descriptions according to the traditional classification system, such as professional, clerical, or skilled workers, the book groups them into 13 clusters of jobs whose activities are related. For example, all health occupations are described in the same section. Other innovations include improved earnings data, expanded information to help young people match their personal interests and abilities with occupations, and an extensively revised guide for using the book in career counseling.

Within the various major occupations, the Handbook provides an extensive breakdown of individual jobs. For instance, it describes 48 different types of clerks and 25 different kinds of engineers. Alphabetically, the job range runs from able seaman to zoologist.

The task of making sound career plans becomes more difficult as the economy continues to expand, the Handbook notes. New technology, new products, and changes in living standards constantly affect the types of jobs available. To make the Handbook more helpful to users, some background is included on trends in the Nation's work force and in its business, industrial, and occupational development.

For example, job growth in the service-producing industries is expected to outstrip that in the goods-producing industries. Such activities as health care, repair and maintenance, government, and transportation will experience substantial growth during the next decade, according to the Handbook. Among the goods-producing industries, employment will increase in manufacturing and construction, although not as much as in the services, but an employment decline is likely in farming and mining.

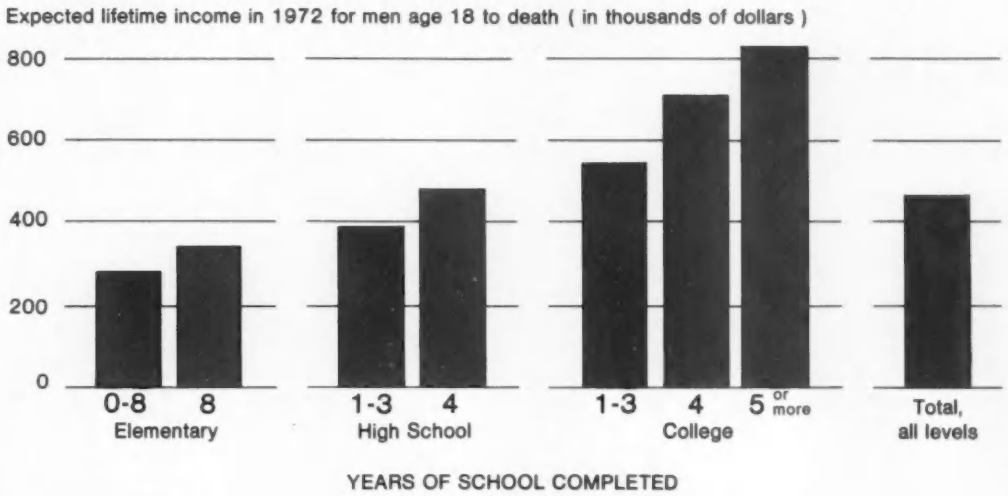
Changes also will occur in the Nation's occupational profile, as a result of mechanization and changing lifestyles, the Handbook points out. New technology and the demand for more services will affect the makeup of the work force. The number of white-collar workers—professional, managerial, clerical, and sales—will continue to grow faster than the number of blue-collar workers—operatives, laborers, and craftworkers.

However, employment growth through the mid-1980's will vary widely among occupations (see chart 1). Professional and technical workers will show the fastest growth. Since these jobs require the greatest amount of education, it is significant to note that school enrollments also are expected to rise considerably.

The Handbook stresses the importance of education, pointing out that employers are seeking people with higher levels of education because of

Chart 2

Estimated Lifetime Earnings for Men Tend to Rise With Years of School Completed



Source: Bureau of the Census

the increasing complexity of many jobs. However, it also notes that 8 out of 10 available jobs will not require a college degree. A worker with a college degree can expect to earn almost three times that of a worker with less than 8 years of schooling (see chart 2), according to recent Census Bureau data.

Although the number of jobs to be added in a given occupation is important, the Handbook says a young person should not be discouraged from pursuing a career in a field which does not show growth potential. It points out that 2 out of every 3 job openings that arise are a result of the need to replace workers who die, retire, or otherwise leave their jobs.

The 1974-75 edition of the Handbook bases its future employment outlook on certain fundamental assumptions:

- Maintenance of high levels of employment and use of available manpower in 1985.
- No substantial change in the rate of economic growth.
- Continuation of economic, social, and educational trends according to recent patterns.
- Continuation of technological advancement at about the same rate.
- A stable defense budget, and no involvement of the United States in war.

The Handbook has come a long way since its inception. Its roots go back to a report of the Advisory Committee on Education appointed by President Franklin Roosevelt. That committee recommended that an occupational outlook service be set up in the Bureau of Labor Statistics (BLS) to make studies and provide information for use of individuals in choosing a career. Although this service was organized in 1941, it was not until after World War II that it devoted efforts to preparing occupational reports for use in guidance. The first manual was used in the Veterans Administration's counseling and rehabilitation program.

After encouragement by the National Vocational Guidance Association, the BLS published the first edition of the OCCUPATIONAL OUTLOOK HANDBOOK in 1949. Favorable public response resulted in the decision to revise and enlarge future editions, and in 1955 Congress provided for the maintenance of the Handbook and related publications on a regular continuing basis. For those who do not have a need for the complete volume, a series of reprints covering about 150 occupations or industries is available at a nominal cost (usually 25 cents each).

'A worker with a college degree can expect to earn almost three times that of a worker with less than 8 years of schooling . . .'

From the first edition, almost one-third of which was devoted to agricultural occupations, to the most recent, which leans heavily toward service jobs, the Handbook has sought to keep up with the changing profile of the Nation's work force. Its popularity attests to how well it has succeeded. With sales of about 80,000 for the full volume, plus hundreds of thousands of the reprints, the Handbook has become one of the all-time bestsellers among Government publications. □

Words & Figures

Characteristics of OIC and SER Enrollees

The Opportunities Industrialization Centers (OIC) and Operation SER are two examples of manpower programs organized and directed by minority groups. Initiated in Philadelphia in 1964 by the Reverend Leon Sullivan as a black self-help project, the OIC now encompasses some 60 centers throughout the Nation. SER, an acronym for Service, Employment, and Redevelopment which translates into Spanish as the verb "to be," started in 1965 as a volunteer job placement service in the Houston and Corpus Christi barrios. It now is functioning as an ongoing organization in about 30 communities.

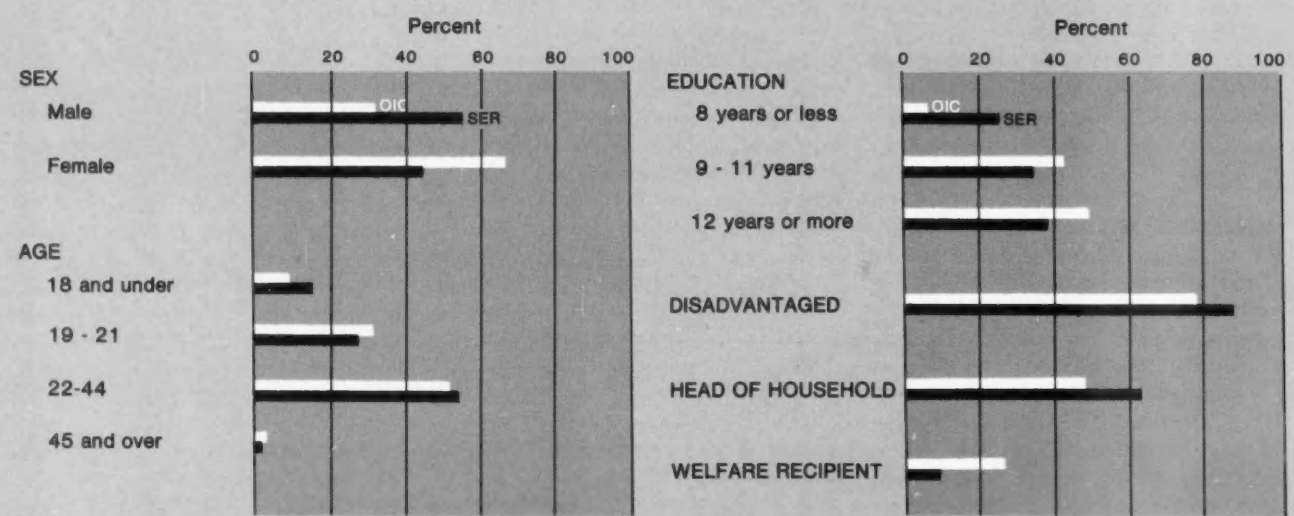
Although the OIC and SER initially were established to serve a specific minority population, they have been extended and modified so that they now serve many different elements of the disadvantaged community. During the first 9 months of fiscal year 1974, 73 percent of the 12,400 new OIC enrollees were black. Almost 10 percent of the remaining participants were Hispanic. Of the 3,100 persons who enrolled in SER programs during the same period, 87 percent were Hispanic, 6 percent were Anglos, and 4 percent were black. Because SER operates primarily in the Southwest and California, 80 percent of its participants were Mexican American.

Men accounted for 56 percent of new SER participants, while women outnumbered men 2 to 1 among new OIC enrollees. More than 25 percent of new OIC enrollees were on welfare at the time they entered the program, compared with 9 percent for SER.

More than half the new participants in both programs were between 22 and 44 years old. OIC enrollees had more education; half had completed high school, compared with 40 percent for SER.

Almost 3 out of 4 of the SER enrollees who left the program—regardless of the reason—got a job. The placement rate for those leaving OIC training was 42 percent. The high female enrollment probably contributes to the lower placement rate for OIC, as family obligations make it more difficult for women to move into the labor force.

Characteristics of New Enrollees in OIC and SER
July 1973 - March 1974



Filling The Police Lineup

by Jill M. Singer

Study Of Personnel Practices Shows Lag In Hiring Of Women, Minority Officers

There's Kojack and Toma, McCloud and McMillan, Ironside and the dynamic duo of Adam 12. All are part of the police lineup on television. All also are men—white men. But if television projects a picture of police work as being an overwhelmingly white, male preserve, it's merely a case of art imitating life.

Women make up less than 2 percent of the force of the average U.S. police department; minorities account for about 4 percent, if Hawaii and Washington, D.C.—two places with unusual high proportions of minority police—are excluded. These two statistics are from a nationwide study of police personnel practices done by the International Association of Chiefs of Police and the Police Foundation in cooperation with the Educational Testing Service.

The study consists of 1972 data compiled from an extensive questionnaire sent to all 668 police jurisdictions in the U.S. having 50 or more "sworn" personnel. Sworn personnel are police department employees with the power to arrest. Some 493 agencies, 74 percent of those surveyed, responded.

Of those replying, 323, or 65 percent, said they had women police officers on the force. Even among these departments, however, there was evidence of the double standard that continually has plagued women's efforts to enter nontraditional jobs. Substantially more than half of the agencies with women police said that they keep separate entrance lists for men and women applicants.

When women were hired for police work, the study found that more often

Jill Singer is a member of the U.S. Department of Labor information staff.

Police Lineup

than not they were funneled into areas of police work that traditionally have been deemed suitable for women—juvenile bureau, female prisoner transport, investigations, records, communications, and police-community relations. Only 111 agencies—22 percent—said that most of their women police were used in the same capacity as men. Almost half the departments responding said they did not use men and women in the same kinds of jobs; the rest of the agencies did not answer the question.

Sometimes entrance requirements

were different for women than for men. Only one agency required a bachelor's degree for men applicants, while 11 reported it was the minimum requirement for women. A high school diploma or equivalency certificate was the minimum educational requirement set by the vast majority of agencies for both men and women applicants.

Most agencies said they have age, height, weight, and visual acuity standards for men and women applicants. Virtually all departments had such standards for men applicants, but a substantial minority did not list minimum and maximum physical requirements for women. One reason for this, of course, is that some did not hire women police. But some agencies that did hire women probably were less concerned about setting physical standards for them because they were not assigned to patrol and similar duties where physical agility and condition would be a factor.

The traditional and often legally mandated practice of giving hiring preference to veterans blocks many women in their attempts to enter police work. Veterans received preference over non-

Police Lineup

veterans in 65 percent of the agencies responding to the study. In 1 out of 4 agencies, veterans' preference was absolute, that is ex-servicemen who were basically qualified for police jobs were placed above all nonveteran applicants on the hiring register. In those departments where they did not receive absolute preference, veterans who passed the written entrance examination received additional points on their test scores. Under this type of preference, test scores might be raised by as much as 20 percent.

More than half the agencies—54 percent—said promotion policies were the same for men and women. Of the 66 agencies (13 percent) reporting that promotion procedures were different, most said the reason was that no advanced positions were available to women. About 1 agency in 4 said veterans received some type of promotion preference. Agencies also were asked if they maintained separate promotion lists for women. Fifty-six departments said they did; another 206 did not answer the question.

Women were serving in supervisory or command ranks in 94 agencies, most of them as sergeants or detectives.

Overall, the 493 agencies in the survey had 166,167 sworn personnel in 1972, of whom 2,859 were women.

Despite the paucity of women police, the study turned up no evidence that police agencies made special efforts to recruit women. The most frequently used recruitment techniques—for men and women—were ads in local papers, recruiting at schools and other educational organizations, and asking for referrals from police employees. But the study points out that "without exception, the use of all recruiting practices was less frequent for females than for males."

Minority recruitment, on the other hand, appeared to be a matter of priority concern to many agencies. Some 181 departments—37 percent of those responding—said they have special programs for recruiting and hiring the disadvantaged or members of minority groups. The recruiting techniques most often used in such programs were ads in minority news media, special integrated recruitment teams, and visits to schools and community centers.

There was a total of 12,447 minority police—all but 516 of them men—employed by all the agencies responding to the survey. About half of the departments—243—said they had minorities in command or supervisory jobs. As with women, minorities serving in these positions most often were sergeants or detectives.

Counties Lead in Women

Of the three types of agencies in the survey—municipal, county, and State—counties had the highest proportion of women police, and municipal departments led in minority employment. State police agencies had the fewest women and minorities. Only 18 State agencies had women police at the time of the survey.

Of the 105,595 sworn personnel employed by municipal agencies, 1,644 were women and 9,920 were minorities. County agencies had 27,006 employees, including 1,176 women and 1,912 minorities. State agencies reported 39 women and 615 minorities among their 33,566 employees.

Analysis of the questionnaires by type of agency also showed that:

- Employment of minorities and women tended to increase with the size of municipal departments.
- Separate hiring and promotion lists for women were used more frequently by county than by municipal agencies, while county agencies were more likely to give women the same duty assignments as men.
- Special recruiting and selection procedures for minorities were used more often by State than municipal or county agencies.

Persons with felony convictions stood virtually no chance of becoming police officers, and those who had been arrested for a felony but not convicted were not much better off. An adult felony conviction barred applicants from jobs in 96 percent of the agencies and a juvenile felony conviction in 90 percent. More than 7 of 10 agencies disqualified applicants for an adult or juvenile felony arrest record. About half the agencies refused to hire applicants who had misdemeanor convictions as an adult or juvenile, and about 1 in 4 turned down applicants because of adult or juvenile misdemeanor arrests.

According to the study, salaries for starting police officers averaged $710 a month, an increase of 14 percent over 1970. The study also indicated that more than 14,000 police officers were hired in 1972 by the almost 500 agencies responding to the survey. The Police Foundation estimates that there now are about 20,000 police openings a year, including those in agencies not covered in the 1972 study.

Who gets these jobs has become a matter of increasing public interest and concern. One clear reflection of that concern can be seen in the study finding that in 1972 almost 200 police agencies were making a special effort to recruit minorities.

Now, a few cities—Washington and New York among them—are showing a similar interest in increasing the number of women police. □

Starting Police Training In High School

When a high school occupational center in western New York State launched a new course a few years ago, some students called it "pig science." And the first students to sign up had to listen to a lot of jibes like "Here come de fuzz!" and "Hey, copper, try to arrest me!"

The course, an unusual one at the high school level, teaches police science. It is given at the Foreman Center in Fairport, N.Y., and is open to junior and senior students of 10 school districts in the area. Students are bused daily from their home schools to the center for the 2½-hour class. The subjects covered are such police practices as two-way radio communications, use of fingerprint equipment, analysis of suspected narcotic substances, crowd control, and use of firearms. Also, students learn about legal definitions of crime, rights of defendants, court procedures, and other broad ramifications of law enforcement.

The police science classroom resembles a precinct station. A head-high reception desk, equipped with a short-wave radio transmitter and receiver, stretches across the back of the room. Occasionally, students use this equipment for traffic control at center events and at rush hours during the school day as buses load and unload students. Often, the receiver is tuned to broadcasts by county or city law enforcement officers so students can learn more about the daily flow of police work. Marksmanship is taught on outdoor and indoor target ranges with air rifles and air pistols.

Frequent visits to police headquarters and precinct stations, sheriffs' offices, municipal offices,

Interested Students Can Continue Career Preparation In Community College

High School

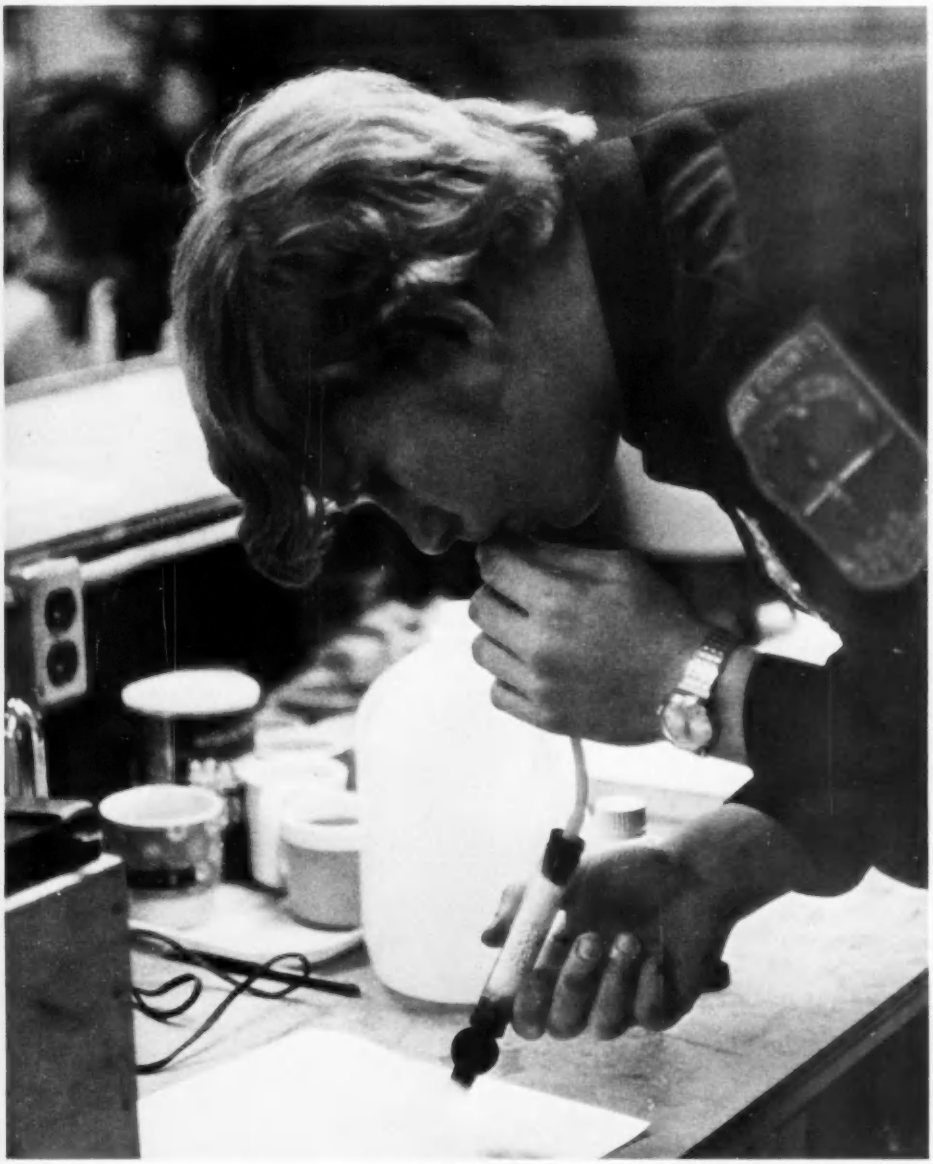
and the courts help to round out student knowledge of police routines. Instructor Lewis Carpenter points out that, in addition to occupational training, the course teaches students civic responsibility and awareness of the law.

The course is one of 22 occupational offerings at the Foreman Center. The center is run by one of 47 Boards of Cooperative Education Services that operate in New York State and that supply supplementary educational services to component school districts.

A display of equipment carried in patrol cars is examined by David Wilbur (left) and Jeffrey Perkins.

A reception desk that also serves as a communications center stretches across the back of the police science classroom and gives it the look of a precinct station.

Students debate a point during a class discussion on judicial procedure.



Using an iodine fuming gun, Martin Farmborough prepares a fingerprint identification test.

Holding riot sticks "on guard," students form a squad wedge during a class on riot control.

The police science course started 3 years ago with an enrollment of 31 students. Carpenter says that more than 100 students have completed the 1-year course and that more than half continued in the law enforcement field in community college studies, security jobs, or the military police.

Students who have completed the Foreman Center course are not able to go into police work immediately after high school graduation, however. In the area, the entry age of 21 is required for police work. Students heading for a police career usually continue their studies in police science at a nearby community college until they can meet the qualifications for police recruits.

This fall Carpenter is hoping to start a work-study program that will give students part-time work experience, with school credit, in the district attorney's office, sheriffs' departments, and county courts. Also, Carpenter is working with an advisory committee to plan an advanced course for students who want additional law enforcement studies in high school. He says the new course is likely to include in-depth study of criminology, corrections facilities and procedures, legal aspects of evidence, judicial appeals, ballistics and various other lab testing techniques, police photography, and crowd and mob psychology.

Student demand for the course is growing, Carpenter says. Some 60 students have applied for this fall's course, nearly twice the number that took it last year. □

R&D Reports

Following is a selected list of reports on research and development projects funded by the Manpower Administration. Unless otherwise indicated, paper copies of reports are available from the National Technical Information Service (NTIS), Springfield, Va. 22151 for the price given in the individual listing; microfiche copies are $1.45. Send remittance with order and specify accession number (PB plus following number). Special arrangements usually may be made for bulk orders.

Development of Assessment Measures for Use With Youth-Work Training Program Enrollees

Describes the longitudinal validation of a battery of tests for use in assessment of disadvantaged adolescents enrolled in work training programs. (PB 231521/AS). $4.75.

From Convict to Citizen: Programs for the Woman Offender

Discusses a variety of programs that can be duplicated by volunteer groups to assist women offenders at all stages of the criminal justice process. Available from District of Columbia Commission on Status of Women, Room 204, District Building, 14th and E Sts. NW., Washington, D.C. 20004.

Improving Performance in Technical and Apprentice Training

Demonstrates how judicious application of modern training technology can result in an effective first-year apprentice training program in which performance is the primary criterion of success and training time is allowed to vary with individual capability. (PB 231241). $6.

Behavioral Interview Guides (BIG)

A training aid developed by the Experimental Manpower Laboratory for Corrections to prepare professionals and paraprofessionals to conduct a behavioral interview, obtain basic descriptive data concerning human behavior, and set the stage for intervention or treatment. Available from Division of Research and Development Utilization, Office of Research and Development, Manpower Administration, Room 9112, 601 D St. NW., Washington, D.C. 20213.

Procedural Guides for Administrators of Public Service Employment Projects

Guidelines developed for use by employment service local office personnel in dealing with employers, trainees, and other public agencies in a program concerned with public service employment. (PB 231851). $4.75.

Incentives and Disincentives to Participation in the WIN Program

Explores the effects of economic incentives, mandatory features, career objectives, environmental and personal supports and constraints, and other aspects of the WIN Program in Cleveland, Chicago, and Detroit. (PB 231585). $5.50.

Black Managers in White Corporations

This study of the effect of race on career patterns of business executives examined the major determinants of career patterns of black managers in white businesses, and the effects corporations have on the black managers' identities and relationships to the black community. (PB 231512/AS). $11.

WIN II: Making a Difference

Report of a conference at which operational level personnel, administrators, State officials, and Federal and regional office staff discussed the implications for WIN II of research findings on the earlier WIN Program. Identifies a number of problems inherent in interagency relationships, staff training, supervision, and some of the WIN Program's early difficulties with job development, client selection, and processing. (PB 231530/AS). $3.25.

A Guide for Utilizing Volunteer Technical Assistance by a National Alliance of Businessmen Metro

Outlines ways in which a program of technical assistance to companies may be established through use of volunteers who have experience in one or more components of the Job Opportunities in the Business Sector (JOBS) Program. Discusses company needs for technical assistance in developing and conducting training programs, and suggests various strategies for NAB Metros to use in organizing and implementing voluntary technical assistance. (PB 232077/AS). $3.75.

Not For Work Alone: Services at the Workplace

Explores deliberately planned endeavors to provide nonwork-related services at or through the workplace, which help an individual meet nonwork needs. Although most activities at the workplace revolve around the production of goods and services, this project examined a broad range of "nonproductive" worker needs and how they can be met at the workplace. (PB 231307/AS). $5.75.

Report of a Conference on Apprenticeship Training

Based on presentations of papers and discussions at a June 1973 conference of scholars in the field of apprenticeship. (PB 231091/AS). $4.50.

The Post-Prison Analysis of Criminal Behavior and Longitudinal Followup of Institutional Treatment

Describes an 18-month postrelease followup of 142 young male offenders. The study analyzed criminal behavior and evaluated institutional treatment programs. Study found that MDTA trainees worked longer and earned more money in the first 6 months after release than those in the control groups. Available from Division of Research and Development Utilization, Office of Research and Development, Manpower Administration, Room 9112, 601 D St. NW., Washington, D.C. 20213.

The Role of the Counselor in Public Service Employment

A counselor's first-hand account of her experiences in a public service employment project. (PB 232048/AS). $3.75.

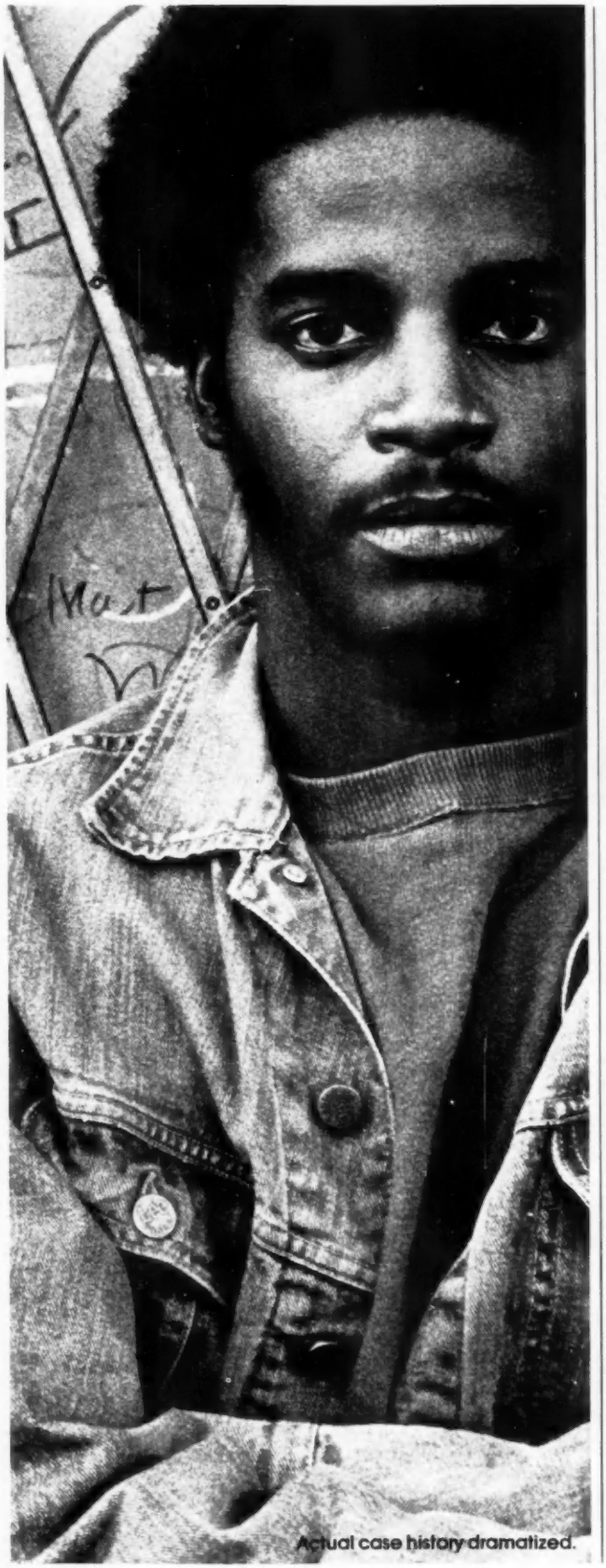
The Role of the Coach in Public Service Employment

Describes role played by the "coach," the client advocate who helps clients adjust to the work environment, in a public service employment project. (PB 231898/AS). $3.25.

The Uses of Paraprofessionals in the Delivery of Manpower and Social Services

Presents findings of a study of the uses of paraprofessionals in a public service employment project. (PB 231897). $3.75.

☆ U.S. Government Printing Office 1974: 583-520/1



Actual case history dramatized.

Bob Veder. 18. About to quit school. About to waste his life. What can a kid like that look forward to?

We're the National Alliance of Businessmen. The JOBS people. We think young people should have the chance to give to society, not take from it. We work with companies that care enough about the future of our society to get a kid like Bob going in the right direction. Like Grey Advertising, who hired Bob as an art trainee.

And there are other companies that care. Like Rockwell International and John Hancock. From needy kids, to the poor and uneducated, to ex-offenders, to unskilled or disabled veterans: the National Alliance of Businessmen is giving people the chance they might never get. Work with us. Give someone a chance to give. Not take.

The National Alliance of Businessmen

The JOBS people

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